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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/289,550	04/09/1999	RICHARD W. FRIESEN	3854	8747

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Mr. Steven Borsand  
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Chicago, IL 60606

EXAMINER
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KYLE, CHARLES R

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/289,550

Applicant(s)

FRIESEN ET AL.

Examiner

Charles R Kyle

Art Unit

3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4,10-12,16,18,28 and 61-98 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,10-12,16,18,28 and 61-98 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/25/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Information Disclosure Statement*

Two references in the March 25, 2005 IDS, lined through, have not been considered. The Examiner was unable to find these documents. The other, initialed references have been considered.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 2, 4, 10-12, 16, 18, 61-70 and 77-98** are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,136,501 *Silverman* in view of US 5,844,572 *Schott*.

**Concerning Claim 1**, *Silverman* discloses the invention substantially as claimed including in a computer based method for facilitating the placement of an order for an item (Disclosure of the Invention, trading instruments) and for displaying transactional information to a user regarding the buying and selling of items (Fig. 5; Col. 4, line 66 to Col. 5, line 4; Col. 2, lines 17-28) in a system where orders comprise a bid type or an offer type (Figs. 4, 5 and 18, "Bid Side" and Offer Side"), and an order is generated for a quantity of the item at a specific value (Fig. 4, lower left hand box denoting "Value" and "Primary Quantity"), the method comprising:

Art Unit: 3624

Displaying a plurality of bid indicators (an icon) each corresponding to at least one bid for a quantity of the item (Fig 4, eles. 73, 75, 77), each bid indicator at a location along a first axis of values corresponding to a value of the bid (Fig 4., "Absolute Value" axis), including bids having different values (Fig. 4, elements 73 and 82); and

Displaying a plurality of offer indicators each corresponding to at least one offer for a quantity of the item (Fig 4, eles. 94, 96, 98), each bid indicator at a location along a first axis of values corresponding to the value of the bid (Fig 4., "Absolute Value" axis).

*Silverman* does not specifically disclose the limitations of positioning of indicators along a scaled axis of values corresponding to an associated value or, in response to a user initiated command, moving an indicator (icon) to a location on the axis. *Schott* discloses these features at Fig. 19a (scaled axis) and movement of an indicator to a location on the axis in response to a user initiated command at Col. 3, lines 20-25 and Col. 20, line 60 to Col. 21, line 28. Note particularly that the displays of *Schott* are concerned with display of financial information (Figs. 26A-26F) and its manipulation; this is the environment of *Silverman*. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of displaying bid/offer information of *Silverman* to include the manipulation of information along a scaled axis disclosed by *Schott* because this would have allowed dynamic creation of orders, reconfiguration of the graphical representations according to manipulation of the graph and simple and easy modification of underlying order data. Such capacity would allow users to readily perceive the status of a market and participate in the market efficiently through quick manipulation of their particular order information (icon).

**As to Claim 2,** *Silverman* discloses the invention substantially as claimed. See the discussion of Claim 1 above. *Silverman* does not specifically disclose icons adjustable for size based on order size, although the order size data is inherent in his displayed order icons at Fig. 4. *Schott* discloses manipulation of similar data through user manipulation of size to reflect quantity. See Abstract and at Col. 3, lines 20-25. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the user manipulation of underlying data disclosed by *Schott* in the invention of *Silverman* because this would have allowed a user to understand the relative size of orders through greater or lesser visual impact based on user controlled size.

**With respect to Claim 4,** *Silverman* discloses order icons containing quantity and value information at Fig. 4, lower left hand box denoting "Value" and "Primary Quantity"

**With respect to Claim 10,** *Silverman* discloses the invention substantially as claimed. See the discussions set forth above. Official Notice is taken that it is old and well known to distinguish a particular user's "icon" in activities so that the user can identify his/her position in the activity. For example, in the game of Monopoly, a player uses a distinct playing piece such as a locomotive or automobile. It would have been obvious to one of ordinary skill in the art at the time the invention was made to distinguish a bidder's icon with a visual characteristic so that a bidder could understand where he/she stood in the bidding with respect to other bidders' and could understand market trends.

**With respect to Claim 11,** *Silverman* discloses high and low price information at Fig. 4. *Schott* discloses an angled edge for an indicator at Col. 8, line 39. It would have been obvious to

Art Unit: 3624

one of ordinary skill in the art at the time the invention was made to have included the angled edge indicator of *Schott* in the method of *Silverman* because this would indicate relatively high and low values to a user.

**Regarding Claims 12 and 16**, see the discussion of Claim 1 above. These Claims also recite the processes of receiving orders and generating icons for new bids or offers, which is taught by *Silverman* at Figs. 4, 14 and 16.

**As to Claim 18**, see the discussions above. *Silverman* does not specifically disclose a third axis representing historical activity of the market. *Schott* disclose plural axes for information display at Col. 9, lines 58-65. This additional limitation of a historical chart is read to be like the bar chart representation of stock market activity, which is old and well-known in trading markets. The presentation of such historical information would have been obvious because this would have allowed traders to gain understanding of market trends.

**As to Claim 61**, bid and ask indicators are visually distinguished as being in different bid and offer columns in the display.

**With respect to Claim 62**, see the discussion of Claim 61.

**With respect to Claims 63 and 70**, it would have been obvious to modify *Silverman* with a marker denoting a value of interest because this would draw a trader's attention to a need to perform some important action. For example, a trader might wish to have a particular price identified on an axis as a reminder to trade at that particular price. A line would be an obvious choice to demark a value to determine if a value was "over the line." Such markers to attract attention to a value of interest are also old and well known as a "bug" on a scaled indicator dial, such as a heading indicator in an airplane.

Art Unit: 3624

**As to Claim 64**, *Silverman* discloses dynamic updating of price and therefore icon position at Col. 4, lines 11-17.

**Concerning Claim 65**, *Schott* discloses selecting and dragging of an order icon at Col. 21, lines 1-30.

**Concerning Claim 66**, at Fig. 17, *Silverman* discloses modification of an order icon based on a transaction as the matching of a ten item bid with two offers comprising nine units. The modified icon would be a remainder bid of one unit. See also Col. 17, lines 36-47.

**Concerning Claim 67**, *Schott* discloses increased size related to quantity of an icon at Fig. 19a and Col. 21, lines 1-30.

**Concerning Claim 68**, *Silverman* discloses values on an axis at Fig. 4, "Lowest" to "Highest."

**As to Claim 69**, *Silverman* discloses trading a commodity at Col. 1, lines 59-62.

**As to Claim 77**, see *Silverman* at Figs. 5 and 18.

**As to Claim 78**, see the discussion of Claim 77 and it would have been obvious to have the user's order icon display quantity so that the user would know his/her order quantity.

**As to Claim 79**, discloses contextual data at Fig. 5, "Display Depth of 3".

**Concerning Claim 80**, see the discussion of Claims 79 and 18.

**With respect to Claim 81**, Official Notice is taken that it was old and well known to display volume graphs of markets, showing trading volume. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Silverman* to include such volume graphs because this would provide additional perspective on the market for the user.

**With respect to Claim 82**, *Schott* discloses high and low values for a period of time.

Art Unit: 3624

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Silverman* to display such highs and lows because this would provide additional perspective on the market for the user.

**Regarding Claims 83 and 84**, *Schott* discloses a graduated axis with values displayed on a first axis at Fig. 19A, displayed “20” and “80”. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Silverman* to have such a graduated displayed axis because this would provide users a ready measuring device to infer indicator/icon value; i.e. a measuring device.

**Concerning Claim 85**, *Silverman* discloses bid and offer indicators in Fig. 5, with bar indicators displayed. Of note is that *Schott* displays like bar indicators at Fig. 19A.

**Concerning Claims 86 and 87**, see the discussion of Claim 1 and *Silverman* discloses a computer system running software at Figs. 1 and 2 and related text..

**With respect to Claim 88**, see the discussions of Claims 87 and 73.

**With respect to Claim 89**, *Silverman* does not specifically disclose customizable derivatives. Official Notice is taken that it was old and well known to customize derivative values of financial parameters. For example, it was common to produce such derivative values in spreadsheet programs to provide users different perspectives on financial information. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Silverman* to allow such derivatives to give users flexibility in the analysis of data. As set forth in the discussion of the *Harrington* reference below, interest is another way of understanding the price of a bond.

**Concerning Claim 90**, see the discussion of Claim 1 and 86 above.



Art Unit: 3624

**With respect to Claim 91**, *Silverman* does not specifically disclose dragging to manipulate data. *Schott* discloses this limitation at Col. 20, lines 33-67. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Silverman* to use dragging because this would provide the user with a familiar and simple way to manipulate financial data.

**Regarding Claims 92 and 93**, *Silverman* discloses quantities of bids and offers at Fig. 5.

**Concerning Claims 94-96**, see the discussion of Claim 70. The Claim language is understood to convey that an order is sent when an certain parameter values are obtained. This is read as the familiar limit order.

**Concerning Claim 97**, see the discussion of Claims 90 and 2.

**With respect to Claim 98**, see the discussion of Claims 92 and 93.

**Claim 28** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Silverman* in view of *Schott* and further in view of *Sacerdoti et al.*

**As to Claim 28**, *Silverman* teaches the invention substantially as claimed including an electronic trading system having orders and receipt of information for those orders, including a value axis, which information is displayed. See the discussion of Claim 1 for detailed reference. *Silverman* does not specifically disclose a quantity axis and display of icons with respect to the axis. *Sacerdoti* discloses this feature at Figs. 4, 5 and 8. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the display of icons with respect to quantity axis because this would have provided additional information. A motivation to combine

Art Unit: 3624

the teachings of the references is given by *Sacerdoti et al* at Col. 1, lines 20-64 as common subject matter of trading.

Also of note are the facts that *Sacerdoti et al* teach the features of icon size corresponding to quantity, bar graphs etc. (Col. 7, lines 36-45) and user adjustment of icon size to reflect quantity (Summary of the Invention). These features are recited in other claims rejected over other art.

Applicants' claims recite placement of an order in accordance with value and quantity, which is disclosed by *Silverman* at Col. 6, line 61 to Col. 7, line 13.

**Claims 71-76** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Silverman* in view of *Schott* and further in view of US 6,161,099 *Harrington et al*.

**As to Claims 71-73**, *Silverman* discloses the invention substantially as claimed. See the discussion of Claim 1. *Silverman* does not disclose a derivative of price as an interest rate. *Harrington* discloses interest rates as a derivative pricing mechanism for bonds at Col. 9, lines 40-55 and Fig. 15. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the interest rate derivative of *Harrington* for the price disclosed by *Silverman* because this derivative would provide a valuation method for a bid which was more familiar in the bond auction art, i.e. true interest cost.

**As to Claim 74**, a breadth of metrics would be obvious to provide maximum flexibility to the user. The same reasoning applies to **Claim 75**, where variation of measures would provide the user flexibility. Spreadsheet programs provide exactly this flexibility wherein users can define multiple parameters for results calculated by a spreadsheet.

Art Unit: 3624

**As to Claim 76**, Official Notice is taken that it was old and well known to change parameters and update displayed information. For example, “Scenario” functions of spreadsheets allow users to select a new parameter (measure) and update the spreadsheet based on the new measures. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify *Silverman* to update displayed results because the use of multiple “measures” would give a user a deeper understanding of market activity.

### ***Response to Arguments***

Applicant's arguments filed December 14, 2004 have been fully considered but they are not persuasive.

As preliminary comment, the Examiner provides an overview of the application of the prior art in the rejections. First, *Silverman* discloses display of transactional information regarding the buying and selling of items in a system having orders (bids and offers), said orders having quantity and value, as set forth above. Elements of the Claims not disclosed by *Silverman* relate to particular display formats of the transactional information and manipulation of such information on a scaled axis to reflect value (quantity) on the axis. These are disclosed by *Schott* as set forth above, and the Examiner has provided a reasoned basis for the combination of the references. The Examiner has combined the references to show that it would have been obvious to use the display and manipulation features of *Schott* to present the financial transaction/order information of *Silverman* to obtain the particular benefits recited in the rejection above and restated here:

*It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of displaying bid/offer information of Silverman to include the*

Art Unit: 3624

*manipulation of information along a scaled axis disclosed by Schott because this would have allowed dynamic creation of orders, reconfiguration of the graphical representations according to manipulation of the graph and simple and easy modification of underlying order data. Such capacity would allow users to readily perceive the status of a market and participate in the market efficiently through quick manipulation of their particular order information (icon).*

The Examiner determined these benefits of this combination of references based on what an artisan of ordinary skill in trading arts would have known at the time of the invention; *no* use of Applicant's specification was made to realize the combination. Applicant's arguments addressed below fail to identify any missing limitation and do not effectively refute the motivation to combine.

Applicant begins argument at page 10, Remarks. At para. 4, Applicant asserts that neither *Silverman* nor *Schott* discloses "facilitating the placement of an order for an item and for displaying transactional information to a user regarding the buying and selling of items in a system". *Silverman* does disclose facilitating the placement of an order for an item (Fig. 19; Col. 18, line 10 to Col. 19, line 31) and for displaying transactional information to a user regarding the buying and selling of items in a system (Fig. 5; Col. 4, line 66 to Col. 5, line 4; Col. 2, lines 17-28). See also the rejection of Claim 1. Applicant provides no suggestion of why these citations are deficient.

At para. 5, Applicant asserts that *Silverman* does not disclose displaying an order icon associated with an order by the user for a particular quantity of the item. See the discussion of Claim 1, which cites *Silverman* as disclosing this limitation at Fig 4, eles. 73, 75, 77. Applicant does not explain how his order "icons" distinguish over those of *Silverman*. Applicant argues that *Silverman* does not disclose moving an order icon on a scale of values, but the Examiner relied on *Schott* for this limitation.

At last para., Applicant argues that *Schott* does not disclose what is effectively a product of the combined references. Applicant is correct that *Schott* relates to manipulation of representational dynamic graphics; it is this manipulation which is applied to the order icons for a particular quantity of items of *Silverman*. *Schott* relates to the manipulation of financial transaction information and *Silverman* provides the financial transaction information to which this manipulation is applied. In response to these arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's succeeding argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971), and the Examiner's comments re the combination above.

At page 11, first full paragraph, Applicant first asserts that *Silverman* does not display data in a way similar to Claim 1, but does not explain why this is so. Applicant cites no claimed feature that distinguishes over *Silverman*.

Applicant then argues that there is no motivation to combine within the references themselves. In response to applicant's argument that there is no suggestion to combine the

Art Unit: 3624

references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Examiner has clearly set out an independently derived motivation to combine, which remains unrefuted.

Applicant next seems to argue that because *Silverman* discloses conventional order entry means, it is not amenable to modification by *Schott*. This line of argument would suggest that any reference disclosing known features could not be modified, a clearly incorrect view. Modification of known systems or methods to derive improvement is the essence of invention. However, *Silverman* is not so conventional as Applicant suggests. Applicant notes at page 10 that *Silverman* discloses the use of a mouse, which is known for “dragging.” This same “dragging” technique is used by *Schott* to manipulate underlying financial data (analogous to the orders of *Silverman*). Applicant seems to suggest that the unobvious aspect of his invention is the use of a “dragging” technique for manipulating orders, a particular form of financial information. It is unclear why this would not be obvious to one of ordinary skill in the art of display and manipulation of financial data. Applicant provides no insight.

In the last lines of this paragraph, Applicant repeats the argument that *Schott* does not contain motivation to combine with *Silverman*. See the discussion above.

Applicant’s next substantive argument begins at page 12, first full paragraph. Applicant refers to the citation to *Harrington*, but argues that this reference does not disclose elements for

Art Unit: 3624

which *Silverman* and *Schott* were relied on. Claim 72 was rejected over *Silverman* in view of *Schott* and further in view of *Harrington*. *Harrington* discloses the derivative information to be displayed on a scaled axis in a combination of *Silverman* and *Schott*. Applicant repeats arguments regarding suggestion to combine in the references and hindsight; these are addressed above. Applicant does not disclose any limitations absent from the references or effectively refute the combination.

The rejections are maintained.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles R Kyle whose telephone number is (703) 305-4458. The examiner can normally be reached on M-F 6:00-2:30.

Art Unit: 3624

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent A Millin can be reached on (703) 308-1065. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

crk  
April 17, 2005

Examiner Charles Kyle

A handwritten signature in black ink, appearing to read "Charles Kyle", with a stylized flourish at the end.